Set Opposite Code

Meets NATEF Task: (A8-B-5) Diagnose the causes of emissions or driveability concerns with stored or active diagnostic trouble codes; obtain, graph, and interpret scan tool data. (P-1)

Name _____ **Date** _____ **Time on Task** _____

Make/Model/Year _____ **VIN** _____ **Evaluation: 4   3   2   1**

If a diagnostic trouble code is set, a commonly used method of diagnosis is to attempt to set the opposite code after clearing the original code. For example, if a throttle position (TP) code is set, clear the DTC and attempt to set a DTC for the opposite condition.

- If a signal high DTC is set, clear the code and turn the ignition switch on (engine off), unplug the sensor and a signal low DTC should be set.

- If a signal low DTC is set, unplug the sensor connector and using a jumper wire, connect the 5-volt reference to the signal terminal in the connector (not at the sensor). Turn the ignition switch on (engine off) and the opposite DTC should set.
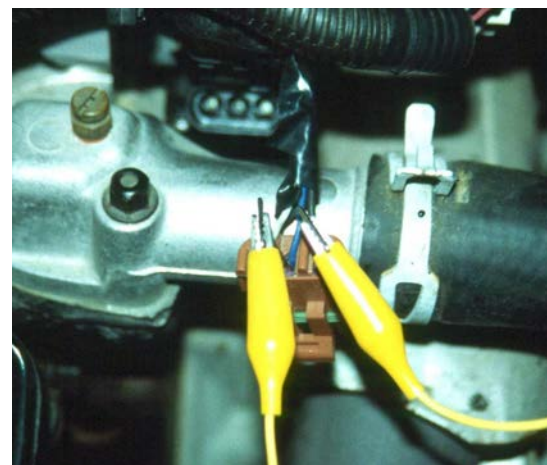

_____ **1.** Set a DTC for TP or MAP sensor.

        a. Which sensor was used? _____
        b. What code set? _____
        c. Meaning of code set? _____

_____ **2.** Clear the DTC.

_____ **3.** Disconnect the sensor wiring and use a jumper wire to set the opposite code.

        a. What code was set? _____
        b. **OK** _____ **NOT OK** _____

Results:

If the opposite code *does* set, the cause of the original DTC is the result of a fault in the sensor (component) itself.

If the opposite DTC *does not* set, the problem is likely due to a wiring fault.

NOTE: Always consult a factory service manual for the factors that must be met for a DTC to be set. Be sure that all factors are present when attempting to set the opposite code.